

CALPOST Version 6.221 Level 080724

Internal Coordinate Transformations by --- COORDLIB Version: 1.99 Level: 070921

Run Title:

Cleco, Brame Energy Center, Rodemacher II (DFGD, 0.1 lb/MMBtu)
CANEY CREEK WILDERNESS AREA CALPOST 2001
VISIBILITY METHOD 8

INPUT GROUP: 1 -- General run control parameters

Option to run all periods found
in the met. file(s) (METRUN) Default: 0 ! METRUN = 1 !

METRUN = 0 - Run period explicitly defined below
METRUN = 1 - Run all periods in CALPUFF data file(s)

Starting date: Year (ISYR) -- No default !ISYR = 2001 !
Month (ISMO) -- No default !ISMO = 1 !
Day (ISDY) -- No default !ISDY = 1 !
Starting time: Hour (ISHR) -- No default !ISHR = 0 !
Minute (ISMIN) -- No default !ISMIN = 0 !
Second (ISSEC) -- No default !ISSEC = 0 !

Ending date: Year (IEYR) -- No default !IEYR = 2001 !
Month (IEMO) -- No default !IEMO = 12 !
Day (IEDY) -- No default !IEDY = 31 !
Ending time: Hour (IEHR) -- No default !IEHR = 0 !
Minute (IEMIN) -- No default !IEMIN = 0 !
Second (IESEC) -- No default !IESEC = 0 !

(These are only used if METRUN = 0)

All times are in the base time zone of the CALPUFF simulation.
CALPUFF Dataset Version 2.1 contains the zone, but earlier versions
do not, and the zone must be specified here. The zone is the
number of hours that must be ADDED to the time to obtain UTC (or GMT).
Identify the Base Time Zone for the CALPUFF simulation
(BTZONE) -- No default !BTZONE = 6.0 !

Process every period of data?
(NREP) -- Default: 1 !NREP = 1 !
(1 = every period processed,
2 = every 2nd period processed,

5 = every 5th period processed, etc.)

Species & Concentration/Deposition Information

Species to process (ASPEC) -- No default ! ASPEC = VISIB !
(ASPEC = VISIB for visibility processing)

Layer/deposition code (ILAYER) -- Default: 1 ! ILAYER = 1 !
'1' for CALPUFF concentrations,
'-1' for dry deposition fluxes,
'-2' for wet deposition fluxes,
'-3' for wet+dry deposition fluxes.

Scaling factors of the form: -- Defaults: ! A = 0.0 !
 $X(\text{new}) = X(\text{old}) * A + B$ A = 0.0 ! B = 0.0 !
(NOT applied if A = B = 0.0) B = 0.0

Add Hourly Background Concentrations/Fluxes?
(LBACK) -- Default: F ! LBACK = F !

Source of NO2 when ASPEC=NO2 (above) or LVNO2=T (Group 2) may be from CALPUFF NO2 concentrations OR from a fraction of CALPUFF NOx concentrations. Specify the fraction of NOx that is treated as NO2 either as a constant or as a table of fractions that depend on the magnitude of the NOx concentration:

(NO2CALC) -- Default: 1 ! NO2CALC = 1 !
0 = Use NO2 directly (NO2 must be in file)
1 = Specify a single NO2/NOx ratio (RNO2NOX)
2 = Specify a table NO2/NOx ratios (TNO2NOX)
(NOTE: Scaling Factors must NOT be used with NO2CALC=2)

Single NO2/NOx ratio (0.0 to 1.0) for treating some or all NOx as NO2, where [NO2] = [NOX] * RNO2NOX
(used only if NO2CALC = 1)
(RNO2NOX) -- Default: 1.0 ! RNO2NOX = 1.0 !

Table of NO2/NOx ratios that vary with NOx concentration.
Provide 14 NOx concentrations (ug/m**3) and the corresponding NO2/NOx ratio, with NOx increasing in magnitude. The ratio used for a particular NOx concentration is interpolated from the values provided in the table. The ratio for the smallest tabulated NOx concentration (the first) is used for all NOx concentrations less than the smallest tabulated value, and the ratio for the largest tabulated NOx concentration (the last) is used for all NOx concentrations greater than the largest tabulated value.
(used only if NO2CALC = 2)

NOx concentration(ug / m3)
(CNOX) -- No default
! CNOX = 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0,
8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0 !

NO2/NOx ratio for each NOx concentration:
(TNO2NOX) -- No default

```
! TNO2NOX = 1.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0,  
    1.0, 1.0, 1.0, 1.0, 1.0, 1.0 !
```

Source information

Option to process source contributions:

- 0 = Process only total reported contributions
 - 1 = Sum all individual source contributions and process
 - 2 = Run in TRACEBACK mode to identify source contributions at a SINGLE receptor
- (MSOURCE) -- Default: 0 ! MSOURCE = 0 !

Plume Model Output Processing Options

Output from models other than CALPUFF and CALGRID can be written in the CONC.DAT format and processed by CALPOST. Plume models such as AERMOD typically do not treat CALM hours, and do not include such hours in multiple-hour averages, with specific rules about how many calm hours can be removed from an average. This treatment is known as CALM PROCESSING. Calm periods are identified from wind speeds in the meteorological data file for the application, which must be identified in Input Group 0 as the single-point meteorological data file MET1DAT.

- 0 = Option is not used for CALPUFF/CALGRID output files
 - 1 = Apply CALM processing procedures to multiple-hour averages
- (MCALMPRO) -- Default: 0 ! MCALMPRO = 0 !

Format of Single-point Met File

- 1 = AERMOD/AERMET SURFACE file
- (MET1FMT) -- Default: 1 ! MET1FMT = 1 !

Receptor information

Gridded receptors processed? (LG) -- Default: F ! LG = F !

Discrete receptors processed? (LD) -- Default: F ! LD = T !

CTSG Complex terrain receptors processed?

(LCT) -- Default: F ! LCT = F !

--Report results by DISCRETE receptor RING?

(only used when LD = T) (LDRING) -- Default: F ! LDRING = F !

--Select range of DISCRETE receptors (only used when LD = T):

Select ALL DISCRETE receptors by setting NDRECP flag to -1;

OR

Select SPECIFIC DISCRETE receptors by entering a flag (0,1) for each

0 = discrete receptor not processed

1 = discrete receptor processed

using repeated value notation to select blocks of receptors:

23*1, 15*0, 12*1

Flag for all receptors after the last one assigned is set to 0

(NDRECP) -- Default: -1
! NDRECP = 80*1, 40*0!

--Select range of GRIDDED receptors (only used when LG = T):

X index of LL corner (IBGRID) -- Default: -1 ! IBGRID = -1 !
(-1 OR 1 <= IBGRID <= NX)

Y index of LL corner (JBGRID) -- Default: -1 ! JBGRID = -1 !
(-1 OR 1 <= JBGRID <= NY)

X index of UR corner (IEGRID) -- Default: -1 ! IEGRID = -1 !
(-1 OR 1 <= IEGRID <= NX)

Y index of UR corner (JEGRID) -- Default: -1 ! JEGRID = -1 !
(-1 OR 1 <= JEGRID <= NY)

Note: Entire grid is processed if IBGRID=JBGRID=IEGRID=JEGRID=-1

--Specific gridded receptors can also be excluded from CALPOST processing by filling a processing grid array with 0s and 1s. If the processing flag for receptor index (i,j) is 1 (ON), that receptor will be processed if it lies within the range delineated by IBGRID, JBGRID,IEGRID,JEGRID and if LG=T. If it is 0 (OFF), it will not be processed in the run. By default, all array values are set to 1 (ON).

Number of gridded receptor rows provided in Subgroup (1a) to identify specific gridded receptors to process
(NGONOFF) -- Default: 0 ! NGONOFF = 0 !

!END!

Subgroup (1a) -- Specific gridded receptors included/excluded

Specific gridded receptors are excluded from CALPOST processing by filling a processing grid array with 0s and 1s. A total of NGONOFF lines are read here. Each line corresponds to one 'row' in the sampling grid, starting with the NORTHERNMOST row that contains receptors that you wish to exclude, and finishing with row 1 to the SOUTH (no intervening rows may be skipped). Within a row, each receptor position is assigned either a 0 or 1, starting with the westernmost receptor.

0 = gridded receptor not processed
1 = gridded receptor processed

Repeated value notation may be used to select blocks of receptors:
23*1, 15*0, 12*1

Because all values are initially set to 1, any receptors north of the first row entered, or east of the last value provided in a row, remain ON.

(NGXRECP) -- Default: 1

INPUT GROUP: 2 -- Visibility Parameters (ASPEC = VISIB)

Test visibility options specified to see
if they conform to FLAG 2008 configuration?

(MVISCHECK) -- Default: 1 ! MVISCHECK = 1 !

0 = NO checks are made

1 = Technical options must conform to FLAG 2008 visibility guidance

ASPEC = VISIB

LVNO2 = T

NO2CALC = 1

RNO2NOX = 1.0

MVISBK = 8

M8_MODE = 5

Some of the data entered for use with the FLAG 2008 configuration
are specific to the Class I area being evaluated. These values can
be checked within the CALPOST user interface when the name of the
Class I area is provided.

Name of Class I Area (used for QA purposes only)

(AREANAME) -- Default: User ! AREANAME = CACR !

Particle growth curve f(RH) for hygroscopic species

(MFRH) -- Default: 4 ! MFRH = 4 !

1 = IWAQM (1998) f(RH) curve (originally used with MVISBK=1)

2 = FLAG (2000) f(RH) tabulation

3 = EPA (2003) f(RH) tabulation

4 = IMPROVE (2006) f(RH) tabulations for sea salt, and for small and
large SULFATE and NITRATE particles;

Used in Visibility Method 8 (MVISBK = 8 with M8_MODE = 1, 2, or 3)

Maximum relative humidity (%) used in particle growth curve

(RHMAX) -- Default: 98 ! RHMAX = 95 !

Modeled species to be included in computing the light extinction

Include SULFATE? (LVS04) -- Default: T ! LVS04 = T !

Include NITRATE? (LVNO3) -- Default: T ! LVNO3 = T !

Include ORGANIC CARBON? (LVOC) -- Default: T ! LVOC = T !

Include COARSE PARTICLES? (LVMPC) -- Default: T ! LVMPC = T !

Include FINE PARTICLES? (LVMF) -- Default: T ! LVMF = T !

Include ELEMENTAL CARBON? (LVEC) -- Default: T ! LVEC = T !

Include NO2 absorption? (LVNO2) -- Default: F ! LVNO2 = T !

With Visibility Method 8 -- Default: T

FLAG (2008)

And, when ranking for TOP-N, TOP-50, and Exceedance tables,

Include BACKGROUND? (LVBK) -- Default: T ! LVBK = T !

Species name used for particulates in MODEL.DAT file
COARSE (SPECPMC) -- Default: PMC ! SPECPMC = PMC !
FINE (SPECPMF) -- Default: PMF ! SPECPMF = PMF !

Extinction Efficiency (1/Mm per ug/m**3)

MODELED particulate species:

PM COARSE (EEPNC) -- Default: 0.6 ! EEPNC = 0.6 !
PM FINE (EEPNF) -- Default: 1.0 ! EEPNF = 1 !

BACKGROUND particulate species:

PM COARSE (EPMCBK) -- Default: 0.6 ! EPMCBK = 0.6 !

Other species:

AMMONIUM SULFATE (EESO4) -- Default: 3.0 ! EESO4 = 3 !
AMMONIUM NITRATE (EENO3) -- Default: 3.0 ! EENO3 = 3 !
ORGANIC CARBON (EEOC) -- Default: 4.0 ! EEOC = 4 !
SOIL (EESOIL) -- Default: 1.0 ! EESOIL = 1 !
ELEMENTAL CARBON (EEECC) -- Default: 10. ! EEECC = 10 !
NO2 GAS (EENO2) -- Default: .1755 ! EENO2 = 0.1755 !

Visibility Method 8:

AMMONIUM SULFATE (EESO4S) Set Internally (small)
AMMONIUM SULFATE (EESO4L) Set Internally (large)
AMMONIUM NITRATE (EENO3S) Set Internally (small)
AMMONIUM NITRATE (EENO3L) Set Internally (large)
ORGANIC CARBON (EEOCS) Set Internally (small)
ORGANIC CARBON (EEOCL) Set Internally (large)
SEA SALT (EESALT) Set Internally

Background Extinction Computation

Method used for the 24h-average of percent change of light extinction:
Hourly ratio of source light extinction / background light extinction
is averaged? (LAVER) -- Default: F ! LAVER = F !

Method used for background light extinction

(MVISBK) -- Default: 8 ! MVISBK = 8 !
FLAG (2008)

- 1 = Supply single light extinction and hygroscopic fraction
 - Hourly F(RH) adjustment applied to hygroscopic background and modeled sulfate and nitrate
- 2 = Background extinction from speciated PM concentrations (A)
 - Hourly F(RH) adjustment applied to observed and modeled sulfate and nitrate
 - F(RH) factor is capped at F(RHMAX)
- 3 = Background extinction from speciated PM concentrations (B)
 - Hourly F(RH) adjustment applied to observed and modeled sulfate and nitrate
 - Receptor-hour excluded if RH>RHMAX
 - Receptor-day excluded if fewer than 6 valid receptor-hours
- 4 = Read hourly transmissometer background extinction measurements
 - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
 - Hour excluded if measurement invalid (missing, interference, or large RH)
 - Receptor-hour excluded if RH>RHMAX

- Receptor-day excluded if fewer than 6 valid receptor-hours
- 5 = Read hourly nephelometer background extinction measurements
- Rayleigh extinction value (BEXTRAY) added to measurement
 - Hourly F(RH) adjustment applied to modeled sulfate and nitrate
 - Hour excluded if measurement invalid (missing, interference, or large RH)
 - Receptor-hour excluded if RH>RHMAX
 - Receptor-day excluded if fewer than 6 valid receptor-hours
- 6 = Background extinction from speciated PM concentrations
- FLAG (2000) monthly RH adjustment factor applied to observed and modeled sulfate and nitrate
- 7 = Use observed weather or prognostic weather information for background extinction during weather events; otherwise, use Method 2
- Hourly F(RH) adjustment applied to modeled sulfate and nitrate
 - F(RH) factor is capped at F(RHMAX)
 - During observed weather events, compute Bext from visual range if using an observed weather data file, or
 - During prognostic weather events, use Bext from the prognostic weather file
 - Use Method 2 for hours without a weather event
- 8 = Background extinction from speciated PM concentrations using the IMPROVE (2006) variable extinction efficiency formulation (MFRH must be set to 4)
- Split between small and large particle concentrations of SULFATES, NITRATES, and ORGANICS is a function of concentration and different extinction efficiencies are used for each
 - Source-induced change in visibility includes the increase in extinction of the background aerosol due to the change in the extinction efficiency that now depends on total concentration.
 - Fsmall(RH) and Flarge(RH) adjustments for small and large particles are applied to observed and modeled sulfate and nitrate concentrations
 - Fsalt(RH) adjustment for sea salt is applied to background sea salt concentrations
 - F(RH) factors are capped at F(RHMAX)
 - RH for Fsmall(RH), Flarge(RH), and Fsalt(RH) may be obtained from hourly data as in Method 2 or from the FLAG monthly RH adjustment factor used for Method 6 where EPA F(RH) tabulation is used to infer RH, or monthly Fsmall, Flarge, and Fsalt RH adjustment factors can be directly entered.
 - Furthermore, a monthly RH factor may be applied to either hourly concentrations or daily concentrations to obtain the 24-hour extinction.

These choices are made using the M8_MODE selection.

Additional inputs used for MVISBK = 1:

Background light extinction (1/Mm)
 (BEXTBK) -- No default ! BEXTBK = 12 !
 Percentage of particles affected by relative humidity
 (RHFRC) -- No default ! RHFRC = 10 !

Additional inputs used for MVISBK = 6,8:

Extinction coefficients for hygroscopic species (modeled and background) are computed using a monthly RH adjustment factor

in place of an hourly RH factor (VISB.DAT file is NOT needed).
Enter the 12 monthly factors here (RHFAC). Month 1 is January.

(RHFAC) -- No default ! RHFAC = 3.3, 3.0, 2.7, 2.8,
3.2, 3.2, 3.0, 3.0,
3.2, 3.2, 3.1, 3.3 !

Additional inputs used for MVISBK = 7:

The weather data file (DATSAV abbreviated space-delimited) that
is identified as VSRN.DAT may contain data for more than one
station. Identify the stations that are needed in the order in
which they will be used to obtain valid weather and visual range.
The first station that contains valid data for an hour will be
used. Enter up to MXWSTA (set in PARAMS file) integer station IDs
of up to 6 digits each as variable IDWSTA, and enter the corresponding
time zone for each, as variable TZONE (= UTC-LST).

A prognostic weather data file with Bext for weather events may be used
in place of the observed weather file. Identify this as the VSRN.DAT
file and use a station ID of IDWSTA = 999999, and TZONE = 0.

NOTE: TZONE identifies the time zone used in the dataset. The
DATSAV abbreviated space-delimited data usually are prepared
with UTC time rather than local time, so TZONE is typically
set to zero.

(IDWSTA) -- No default * IDWSTA = 000000 *
(TZONE) -- No default * TZONE = 0. *

Additional inputs used for MVISBK = 2,3,6,7,8:

Background extinction coefficients are computed from monthly
CONCENTRATIONS of ammonium sulfate (BKSO4), ammonium nitrate (BKNO3),
coarse particulates (BKPMC), organic carbon (BKOC), soil (BKSOIL), and
elemental carbon (BKEC). Month 1 is January.
(ug/m**3)

(BKSO4) -- No default ! BKSO4 = 0.23, 0.23, 0.23, 0.23,
0.23, 0.23, 0.23,
0.23, 0.23, 0.23 !
(BKNO3) -- No default ! BKNO3 = 0.10, 0.10, 0.10, 0.10,
0.10, 0.10, 0.10,
0.10, 0.10, 0.10 !
(BKPMC) -- No default ! BKPMC = 3.00, 3.00, 3.00, 3.00,
3.00, 3.00, 3.00,
3.00, 3.00, 3.00 !
(BKOC) -- No default ! BKOC = 1.80, 1.80, 1.80, 1.80,
1.80, 1.80, 1.80,
1.80, 1.80, 1.80 !
(BKSOIL) -- No default ! BKSOIL= 0.50, 0.50, 0.50, 0.50,
0.50, 0.50, 0.50,
0.50, 0.50, 0.50 !
(BKEC) -- No default ! BKEC = 0.02, 0.02, 0.02, 0.02,
0.02, 0.02, 0.02,
0.02, 0.02, 0.02 !

Additional inputs used for MVISBK = 8:

Extinction coefficients for hygroscopic species (modeled and background) may be computed using hourly RH values and hourly modeled concentrations, or using monthly RH values inferred from the RHFAC adjustment factors and either hourly or daily modeled concentrations, or using monthly RHFSML, RHFLRG, and RHFSEA adjustment factors and either hourly or daily modeled concentrations.

(M8_MODE) -- Default: 5 ! M8_MODE= 5 !
FLAG (2008)

- 1 = Use hourly RH values from VISB.DAT file with hourly modeled and monthly background concentrations.
- 2 = Use monthly RH from monthly RHFAC and EPA (2003) f(RH) tabulation with hourly modeled and monthly background concentrations.
(VISB.DAT file is NOT needed).
- 3 = Use monthly RH from monthly RHFAC with EPA (2003) f(RH) tabulation with daily modeled and monthly background concentrations.
(VISB.DAT file is NOT needed).
- 4 = Use monthly RHFSML, RHFLRG, and RHFSEA with hourly modeled and monthly background concentrations.
(VISB.DAT file is NOT needed).
- 5 = Use monthly RHFSML, RHFLRG, and RHFSEA with daily modeled and monthly background concentrations.
(VISB.DAT file is NOT needed).

Background extinction coefficients are computed from monthly CONCENTRATIONS of sea salt (BKSALT). Month 1 is January.
(ug/m**3)

(BKSALT) -- No default ! BKSALT= 0.03, 0.03, 0.03, 0.03,
0.03, 0.03, 0.03, 0.03,
0.03, 0.03, 0.03, 0.03 !

Extinction coefficients for hygroscopic species (modeled and background) can be computed using monthly RH adjustment factors in place of an hourly RH factor (VISB.DAT file is NOT needed).
Enter the 12 monthly factors here (RHFSML,RHFLRG,RHFSEA).
Month 1 is January. (Used if M8_MODE = 4 or 5)

Small ammonium sulfate and ammonium nitrate particle sizes
(RHFSML) -- No default ! RHFSML= 3.85, 3.44, 3.14, 3.24,
3.66, 3.71, 3.49, 3.51,
3.73, 3.72, 3.68, 3.88 !

Large ammonium sulfate and ammonium nitrate particle sizes
(RHFLRG) -- No default ! RHFLRG= 2.77, 2.53, 2.37, 2.43,
2.68, 2.71, 2.59, 2.60,
2.71, 2.69, 2.67, 2.79 !

Sea salt particles
(RHFSEA) -- No default ! RHFSEA= 3.90, 3.52, 3.31, 3.41,
3.83, 3.88, 3.69, 3.68,

3.82, 3.76, 3.77, 3.93 !

Additional inputs used for MVISBK = 2,3,5,6,7,8:

Extinction due to Rayleigh scattering is added (1/Mm)
(BEXTRAY) -- Default: 10.0 ! BEXTRAY = 11 !

!END!

INPUT GROUP: 3 -- Output options

Documentation

Documentation records contained in the header of the
CALPUFF output file may be written to the list file.

Print documentation image?
(LDOC) -- Default: F ! LDOC = F !

Output Units

Units for All Output (IPRTU) -- Default: 1 ! IPRTU = 3 !
for for
Concentration Deposition
1 = g/m**3 g/m**2/s
2 = mg/m**3 mg/m**2/s
3 = ug/m**3 ug/m**2/s
4 = ng/m**3 ng/m**2/s
5 = Odour Units

Visibility: extinction expressed in 1/Mega-meters (IPRTU is ignored)

Averaging time(s) reported

1-pd averages (L1PD) -- Default: T ! L1PD = F !
(pd = averaging period of model output)

1-hr averages (L1HR) -- Default: T ! L1HR = F !

3-hr averages (L3HR) -- Default: T ! L3HR = F !

24-hr averages (L24HR) -- Default: T ! L24HR = T !

Run-length averages (LRUNL) -- Default: T ! LRUNL = F !

User-specified averaging time in hours, minutes, seconds
- results for this averaging time are reported if it is not zero

(NAVGH) -- Default: 0 ! NAVGH = 0 !
(NAVGM) -- Default: 0 ! NAVGM = 0 !
(NAVGS) -- Default: 0 ! NAVGS = 0 !

Types of tabulations reported

- 1) Visibility: daily visibility tabulations are always reported for the selected receptors when ASPEC = VISIB.
In addition, any of the other tabulations listed below may be chosen to characterize the light extinction coefficients.
[List file or Plot/Analysis File]

 - 2) Top 50 table for each averaging time selected
[List file only]
(LT50) -- Default: T ! LT50 = F !

 - 3) Top 'N' table for each averaging time selected
[List file or Plot file]
(LTOPN) -- Default: F ! LTOPN = F !
 - Number of 'Top-N' values at each receptor selected (NTOP must be <= 4)
(NTOP) -- Default: 4 ! NTOP = 4 !
 - Specific ranks of 'Top-N' values reported (NTOP values must be entered)
(ITOP(4) array) -- Default: ! ITOP = 1,2,3,4 !
1,2,3,4

 - 4) Threshold exceedance counts for each receptor and each averaging time selected
[List file or Plot file]
(LEXCD) -- Default: F ! LEXCD = F !
 - Identify the threshold for each averaging time by assigning a non-negative value (output units).
 - Default: -1.0
 - Threshold for 1-hr averages (THRESH1) ! THRESH1 = -1.0 !
 - Threshold for 3-hr averages (THRESH3) ! THRESH3 = -1.0 !
 - Threshold for 24-hr averages (THRESH24) ! THRESH24 = -1.0 !
 - Threshold for NAVG-hr averages (THRESHN) ! THRESHN = -1.0 !

 - Counts for the shortest averaging period selected can be tallied daily, and receptors that experience more than NCOUNT counts over any NDAY period will be reported. This type of exceedance violation output is triggered only if NDAY > 0.
- Accumulation period(Days)
(NDAY) -- Default: 0 ! NDAY = 0 !
- Number of exceedances allowed
(NCOUNT) -- Default: 1 ! NCOUNT = 1 !

5) Selected day table(s)

Echo Option -- Many records are written each averaging period selected and output is grouped by day
[List file or Plot file]

(LECHO) -- Default: F ! LECHO = F !

Timeseries Option -- Averages at all selected receptors for each selected averaging period are written to timeseries files. Each file contains one averaging period, and all receptors are written to a single record each averaging time.

[TSERIES_ASPEC_ttHR_CONC_TSUNAM.DAT files]
(LTIME) -- Default: F ! LTIME = F !

Peak Value Option -- Averages at all selected receptors for each selected averaging period are screened and the peak value each period is written to timeseries files.

Each file contains one averaging period.

[PEAKVAL_ASPEC_ttHR_CONC_TSUNAM.DAT files]
(LPEAK) -- Default: F ! LPEAK = F !

-- Days selected for output

(IECHO(366)) -- Default: 366*0
! IECHO = 366*0 !
(366 values must be entered)

Plot output options

Plot files can be created for the Top-N, Exceedance, and Echo tables selected above. Two formats for these files are available, DATA and GRID. In the DATA format, results at all receptors are listed along with the receptor location [x,y,val1,val2,...].

In the GRID format, results at only gridded receptors are written, using a compact representation. The gridded values are written in rows (x varies), starting with the most southern row of the grid.

The GRID format is given the .GRD extension, and includes headers compatible with the SURFER(R) plotting software.

A plotting and analysis file can also be created for the daily peak visibility summary output, in DATA format only.

Generate Plot file output in addition to writing tables to List file?

(LPLT) -- Default: F ! LPLT = F !

Use GRID format rather than DATA format, when available?

(LGRD) -- Default: F ! LGRD = F !

Auxiliary Output Files (for subsequent analyses)

Visibility

A separate output file may be requested that contains the change in visibility at each selected receptor when ASPEC = VISIB. This file can be processed to construct visibility measures that are not available in CALPOST.

Output file with the visibility change at each receptor?
(MDVIS) -- Default: 0 ! MDVIS = 1 !

- 0 = Do Not create file
- 1 = Create file of DAILY (24 hour) Delta-Deciview
- 2 = Create file of DAILY (24 hour) Extinction Change (%)
- 3 = Create file of HOURLY Delta-Deciview
- 4 = Create file of HOURLY Extinction Change (%)

Additional Debug Output

Output selected information to List file
for debugging?
(LDEBUG) -- Default: F ! LDEBUG = F !

Output hourly extinction information to REPORT.HRV?
(Visibility Method 7)
(LVEXTHR) -- Default: F ! LVEXTHR = F !

!END!

NOTICE: Starting year in control file sets the
expected century for the simulation. All
YY years are converted to YYYY years in
the range: 1951 2050

```
*****  
*****  
CALPOST Version 6.221      Level 080724  
*****  
*****
```

CALPOST Control File Input Summary

Replace run data with data in Puff file 1=Y: 1
Run starting date -- year: 2001
month: 1
day: 1
Julian day: 0
Time at start of run - hour(0-23): 0
- minute: 0
- second: 0

Run ending date -- year: 2001
month: 12
day: 31
Julian day: 0
Time at end of run - hour(0-23): 0
- minute: 0
- second: 0

Base time zone (Group 1): 6.0

Every period of data processed -- NREP = 1

Species & Concentration/Deposition Information

Species: VISIB
Layer of processed data: 1
(>0=conc, -1=dry flux, -2=wet flux, -3=wet & dry flux)
Multiplicative scaling factor: 0.0000E+00
Additive scaling factor: 0.0000E+00
Hourly background values used?: F

SAMPLER option

Processing method: 0
0= SAMPLER option not used
1= Report total modeled impact (list file)
2= TRACEBACK mode (DAT files)
3= TRACEBACK mode with sampling factor (DAT files)

Source information

Source contribution processing: 0
0= No source contributions
1= Contributions are summed
2= TRACEBACK mode for 1 receptor
3= Reported TOTAL is processed

Receptor information

Gridded receptors processed?: F
Discrete receptors processed?: T
CTSG Complex terrain receptors processed?: F

Discrete Receptors Processed

Visibility Processing Selected

Visibility Options are Checked for FLAG 2008

Class I Area: CACR

Extinction Computation includes:

SULFATES
NITRATES
NO₂ GAS

Fraction CALPUFF NOx used as NO₂ : 1.000

ORGANIC CARBON
ELEMENTAL CARBON
COARSE PARTICLES
FINE PARTICLES
BACKGROUND

Particle f(RH) growth curve(s) : IMPROVE (2006) Tables

Max. RH % for particle growth (%): 95.000

Species name for modeled particulates

coarse: PMC
fine: PMF

Extinction Efficiency (1/Mm per ug/m**3)

ammonium sulfate S: 2.2000
ammonium sulfate L: 4.8000
ammonium nitrate S: 2.4000
ammonium nitrate L: 5.1000
organic carbon S: 2.8000
organic carbon L: 6.1000
sea salt: 1.7000
NO₂ gas: 0.1755
soil: 1.0000
elemental carbon: 10.0000
MODELED coarse PM: 0.6000
MODELED fine PM: 1.0000
BACKGRND coarse PM: 0.6000

Background Extinction Calculation Method 8

Method 8 Mode: 5
(24-hr avg conc. with monthly F(RH) data)

Monthly RH factor for small particles:

1 .3850E+01
2 .3440E+01
3 .3140E+01
4 .3240E+01
5 .3660E+01
6 .3710E+01
7 .3490E+01
8 .3510E+01
9 .3730E+01
10 .3720E+01
11 .3680E+01
12 .3880E+01

Monthly RH factor for large particles:

1 .2770E+01
2 .2530E+01
3 .2370E+01
4 .2430E+01

5 .2680E+01
6 .2710E+01
7 .2590E+01
8 .2600E+01
9 .2710E+01
10 .2690E+01
11 .2670E+01
12 .2790E+01

Monthly RH factor for sea salt:

1 .3900E+01
2 .3520E+01
3 .3310E+01
4 .3410E+01
5 .3830E+01
6 .3880E+01
7 .3690E+01
8 .3680E+01
9 .3820E+01
10 .3760E+01
11 .3770E+01
12 .3930E+01

Rayleigh scattering extinction (1/Mm): 11.00

Monthly background conc. (ug/m**3):

| | (NH4)2SO4 | (NH4)NO3 | PM-C | OC | SOIL | EC | SEA SALT |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1 | .2300E+00 | .1000E+00 | .3000E+01 | .1800E+01 | .5000E+00 | .2000E-01 | .3000E-01 |
| 2 | .2300E+00 | .1000E+00 | .3000E+01 | .1800E+01 | .5000E+00 | .2000E-01 | .3000E-01 |
| 3 | .2300E+00 | .1000E+00 | .3000E+01 | .1800E+01 | .5000E+00 | .2000E-01 | .3000E-01 |
| 4 | .2300E+00 | .1000E+00 | .3000E+01 | .1800E+01 | .5000E+00 | .2000E-01 | .3000E-01 |
| 5 | .2300E+00 | .1000E+00 | .3000E+01 | .1800E+01 | .5000E+00 | .2000E-01 | .3000E-01 |
| 6 | .2300E+00 | .1000E+00 | .3000E+01 | .1800E+01 | .5000E+00 | .2000E-01 | .3000E-01 |
| 7 | .2300E+00 | .1000E+00 | .3000E+01 | .1800E+01 | .5000E+00 | .2000E-01 | .3000E-01 |
| 8 | .2300E+00 | .1000E+00 | .3000E+01 | .1800E+01 | .5000E+00 | .2000E-01 | .3000E-01 |
| 9 | .2300E+00 | .1000E+00 | .3000E+01 | .1800E+01 | .5000E+00 | .2000E-01 | .3000E-01 |
| 10 | .2300E+00 | .1000E+00 | .3000E+01 | .1800E+01 | .5000E+00 | .2000E-01 | .3000E-01 |
| 11 | .2300E+00 | .1000E+00 | .3000E+01 | .1800E+01 | .5000E+00 | .2000E-01 | .3000E-01 |
| 12 | .2300E+00 | .1000E+00 | .3000E+01 | .1800E+01 | .5000E+00 | .2000E-01 | .3000E-01 |

Optional output file for visibility 1

Create file of DAILY (24 hour) Delta-Deciview

Output options

Units requested for output: (1/Mega-m)

Averaging time(s) selected

User-specified averaging time (hr:mm:ss): 0: 0: 0

1-pd averages: F

1-hr averages: F

3-hr averages: F

24-hr averages: T

User-specified averages: F
Length of run averages: F

Output components selected

Top-50: F
Top-N values at each receptor: F
Exceedance counts at each receptor: F
Output selected information for debugging: F
Echo tables for selected days: F
Time-series for selected days: F
Peak value Time-series for selected days: F

Plot file option

Plot files created: F

MAPSPEC: Species Mapping

Number of species-levels in file : 9
Number of species-levels processed: 10

| Input ID | Processing ID | Name |
|----------|---------------|------|
| 1 | 1 | SO2 |
| 2 | 2 | SO4 |
| 3 | 3 | NOX |
| 4 | 4 | HNO3 |
| 5 | 5 | NO3 |
| 6 | 6 | PMC |
| 7 | 7 | PMF |
| 8 | 8 | EC |
| 9 | 9 | SOA |

Visibility Species

| | Processing ID | Name |
|---------|---------------|------|
| sulfate | 2 | SO4 |
| no2gas | 10 | NO2 |
| noxgas | 3 | NOX |
| nitrate | 5 | NO3 |
| specpmf | 7 | PMF |
| specpmc | 6 | PMC |
| orgcarb | 9 | SOA |
| lmncarb | 8 | EC |

IDENTIFICATION OF PROCESSED MODEL FILE -----

CALPUFF 5.8.4 130731

CLECO, Brame Energy Center, Rodemacher II (DFGD, 0.1 lb/MMBtu)
ALM-step1
Repartitioning of NO3/HNO3

Averaging time for values reported from model:
1 HOUR

Number of averaging periods in file from model:

Chemical species names for each layer in model:

| | |
|------------------|---|
| SO ₂ | 1 |
| SO ₄ | 1 |
| NOX | 1 |
| HNO ₃ | 1 |
| NO ₃ | 1 |
| PMC | 1 |
| PMF | 1 |
| EC | 1 |
| SOA | 1 |

QA Information -- Internal Representation of Data

CONTENTS OF CONTROL FILE -----

```
navg,ntop      = 0 4
navgh,navgm,navgs = 0 0 0
itop = 1 2 3 4
L[1,3,24]HR    = F F T
LNAVG, LRUNL   = F F
LT50, LTOPN, LEXCD = F F F
LECHO, LTIME, LPKAK = F F F
THRESH1        = -1.00000000
THRESH3        = -1.00000000
THRESH24       = -1.00000000
THRESHN        = -1.00000000
PLT, LGRD      = F F
MDVIS          = 1
LDEBUG          = F
LCTSG          = F
```

CONTENTS OF HEADER OF MODEL OUTPUT FILE -----

```
model : CALPUFF 5.8.4 130731
msyr,mjsday = 2000 366
mshr,mssec = 23 0
nsecdt (period) = 3600
xbtz = 6.00000000
mnper,nszout,mavgpd = 8752 9 1
xorigkm,yorigkm,nsssta = -951.547058 -1646.63708 0
ielmet,jelmet = 462 376
delx,dely,nz = 4.00000000 4.00000000 1
iastrar,iastop,jastar,jastop = 288 451 117 274
isastr,isastp,jsastr,jsastp = 1 462 1 376
(computed) ngx,ngy = 462 376
meshdn,npts,nareas = 1 1 0
nlines,nvols = 0 0
ndrec,nctrec,LSGRID = 120 0 F
```

Discrete Receptors (n,x,y,z):

```
1 270.325867 -617.518921 365.000000
2 271.090393 -617.494019 365.000000
3 271.854797 -617.469116 368.000000
4 268.767273 -616.646362 411.000000
5 269.531677 -616.621704 462.000000
6 270.295959 -616.597046 431.000000
7 271.060364 -616.572144 518.000000
8 271.824768 -616.547241 487.000000
9 272.589050 -616.522339 396.000000
10 265.680481 -615.822632 518.000000
11 266.444763 -615.798218 523.000000
12 267.209045 -615.773682 548.000000
13 267.973328 -615.749146 579.000000
14 268.737610 -615.724487 547.000000
15 269.501892 -615.699829 538.000000
16 270.266174 -615.675049 640.000000
17 271.030334 -615.650269 608.000000
18 260.301697 -615.069458 335.000000
19 261.065857 -615.045532 431.000000
20 261.830139 -615.021606 457.000000
21 262.594299 -614.997559 414.000000
22 263.358459 -614.973511 426.000000
```

23 264.122742 -614.949341 426.000000
24 264.886902 -614.924927 388.000000
25 265.651062 -614.900635 388.000000
26 266.415344 -614.876343 365.000000
27 267.179504 -614.851807 386.000000
28 267.943665 -614.827271 396.000000
29 268.707825 -614.802612 426.000000
30 269.471985 -614.777954 446.000000
31 270.236267 -614.753174 441.000000
32 271.000427 -614.728394 457.000000
33 271.764587 -614.703491 465.000000
34 272.528748 -614.678589 442.000000
35 273.293030 -614.653442 426.000000
36 260.272888 -614.147583 304.000000
37 261.036926 -614.123657 304.000000
38 261.801086 -614.099731 319.000000
39 262.565247 -614.075684 334.000000
40 263.329407 -614.051636 370.000000
41 264.093567 -614.027344 405.000000
42 264.857605 -614.003052 409.000000
43 265.621765 -613.978760 450.000000
44 266.385803 -613.954346 518.000000
45 267.149963 -613.929932 609.000000
46 267.914124 -613.905396 534.000000
47 268.678162 -613.880737 517.000000
48 269.442200 -613.856079 575.000000
49 270.206360 -613.831299 600.000000
50 270.970520 -613.806519 609.000000
51 271.734558 -613.781616 609.000000
52 272.498596 -613.756714 561.000000
53 261.008118 -613.201782 335.000000
54 261.772156 -613.177856 432.000000
55 262.536194 -613.153809 487.000000
56 263.300232 -613.129639 499.000000
57 264.064270 -613.105469 514.000000
58 264.828308 -613.081177 442.000000
59 265.592346 -613.056885 439.000000
60 266.356384 -613.032471 395.000000
61 267.120422 -613.007935 400.000000
62 267.884460 -612.983521 426.000000
63 268.648499 -612.958862 487.000000
64 269.412415 -612.934204 548.000000
65 270.176453 -612.909424 548.000000
66 270.940491 -612.884644 548.000000
67 271.704529 -612.859741 535.000000
68 261.743225 -612.255981 304.000000
69 262.507141 -612.231812 334.000000
70 263.271179 -612.207764 396.000000
71 264.035095 -612.183594 457.000000
72 264.799011 -612.159302 457.000000
73 265.563049 -612.135010 426.000000
74 266.326965 -612.110596 411.000000
75 267.090881 -612.086182 406.000000
76 267.854797 -612.061646 396.000000
77 268.618713 -612.036987 401.000000
78 269.382629 -612.012329 397.000000

79 261.714294 -611.334106 322.000000
80 262.478088 -611.309937 334.000000
81 777.710144 -1118.01306 0.00000000E+00
82 779.970764 -1115.93896 0.00000000E+00
83 780.696716 -1114.93750 0.00000000E+00
84 781.422424 -1113.93604 0.00000000E+00
85 785.606995 -1106.06689 0.00000000E+00
86 789.226868 -1101.05811 0.00000000E+00
87 789.783264 -1098.19727 0.00000000E+00
88 791.229431 -1096.19348 1.00000000
89 791.145813 -1095.26416 1.00000000
90 791.784729 -1093.33289 1.00000000
91 791.700989 -1092.40356 1.00000000
92 792.339539 -1090.47253 1.00000000
93 792.255920 -1089.54321 1.00000000
94 792.172058 -1088.61401 1.00000000
95 792.088196 -1087.68494 1.00000000
96 792.004456 -1086.75574 0.00000000E+00
97 791.920715 -1085.82666 0.00000000E+00
98 791.753235 -1083.96826 0.00000000E+00
99 792.558533 -1083.89575 1.00000000
100 792.474670 -1082.96667 1.00000000
101 791.585754 -1082.11023 0.00000000E+00
102 792.390930 -1082.03760 1.00000000
103 791.502014 -1081.18127 0.00000000E+00
104 792.307068 -1081.10864 1.00000000
105 791.418152 -1080.25220 1.00000000
106 791.334412 -1079.32324 1.00000000
107 790.445862 -1078.46667 0.00000000E+00
108 791.250549 -1078.39417 1.00000000
109 790.362244 -1077.53772 0.00000000E+00
110 791.166931 -1077.46521 1.00000000
111 790.278625 -1076.60876 0.00000000E+00
112 790.194885 -1075.67993 0.00000000E+00
113 790.111267 -1074.75098 1.00000000
114 789.223206 -1073.89453 0.00000000E+00
115 789.139709 -1072.96558 0.00000000E+00
116 788.251770 -1072.10913 0.00000000E+00
117 788.168274 -1071.18030 1.00000000
118 787.280823 -1070.32373 0.00000000E+00
119 786.393372 -1069.46704 0.00000000E+00
120 785.506165 -1068.61035 0.00000000E+00

Surface Met Station UTM_s (n,x,y):

Control-file POINT Sources : 1
EMARB-file POINT Sources : 0
Control-file AREA Sources : 0
EMARB-file AREA Sources : 0
Control-file LINE Sources : 0
EMARB-file LINE Sources : 0
Control-file VOLUME Sources: 0
EMARB-file VOLUME Sources : 0

Source Names
UNIT 2

INPUT FILES

| Default Name | Unit No. | File Name and Path |
|--------------|----------|--------------------|
|--------------|----------|--------------------|

| | | |
|-------------|---|---------------------------|
| CALPOST.INP | 5 | CT_RODE_DFGD_01D_CACR.INP |
| MODEL.DAT | 4 | pu_rode_dfgd_01d.flx |

OUTPUT FILES

| Default Name | Unit No. | File Name and Path |
|--------------|----------|--------------------|
|--------------|----------|--------------------|

| | | |
|-------------|---|---------------------------|
| CALPOST.LST | 8 | ct_rode_dfgd_01d_cacr.lst |
|-------------|---|---------------------------|

CALPOST Version 6.221 Level 080724

24HR VISIBILITY

VISIB BOESNCFG

(1/Mega-m)

START TIME

Modeled Extinction by Species

Small Large SSalt

| YEAR | DAY | HR | RECEPTOR | COORDINATES (km) | TYPE | BEXT(Model) | BEXT(BKG) | BEXT(Total) | %CHANGE | bxSO4 | bxNO3 | bxOC | bxEC | bxPMC | bxPMF | bxNO2 | F(RH) | F(RH) | F(RH) | | | |
|------|-----|----|----------|------------------|------|-------------|-----------|-------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|
| 2000 | 366 | 23 | 1 | 270.326 -617.519 | D | 0.000 | 22.185 | 22.185 | 0.00 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 3.880 | 2.790 | 3.930 | | | | | |
| 2001 | 1 | 23 | 1 | 270.326 -617.519 | D | 0.000 | 22.161 | 22.161 | 0.00 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 3.850 | 2.770 | 3.900 | | | | | |
| 2001 | 2 | 23 | 1 | 270.326 -617.519 | D | 0.000 | 22.161 | 22.161 | 0.00 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 3.850 | 2.770 | 3.900 | | | | | |
| 2001 | 3 | 23 | 1 | 270.326 -617.519 | D | 0.000 | 22.161 | 22.161 | 0.00 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 3.850 | 2.770 | 3.900 | | | | | |
| 2001 | 4 | 23 | 1 | 270.326 -617.519 | D | 0.000 | 22.161 | 22.161 | 0.00 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 3.850 | 2.770 | 3.900 | | | | | |
| 2001 | 5 | 23 | 35 | 273.293 -614.653 | D | 0.335 | 22.161 | 22.496 | 1.51 | 0.027 | 0.298 | 0.007 | 0.001 | 0.001 | 0.002 | 0.000 | 3.850 | 2.770 | 3.900 | | | |
| 2001 | 6 | 23 | 35 | 273.293 -614.653 | D | 0.026 | 22.161 | 22.187 | 0.12 | 0.002 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 3.850 | 2.770 | 3.900 | | | | |
| 2001 | 7 | 23 | 1 | 270.326 -617.519 | D | 0.000 | 22.161 | 22.161 | 0.00 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | | | | | | | | |

--- Ranked Daily Visibility Change ---

| Modeled Extinction by Species | | | | | | | | | | | | |
|-------------------------------|---------|----------|-------|-------|--------|--------|----------|------------------|-------|-------------|-----------|-------------|
| START TIME | Small | Large | SSalt | YEAR | DAY | HR | RECEPTOR | COORDINATES (km) | TYPE | BEXT(Model) | BEXT(BKG) | BEXT(Total) |
| %CHANGE | bxSO4 | bxNO3 | bxOC | bxEC | bxPMC | bxPMF | bxNO2 | F(RH) | F(RH) | F(RH) | | |
| 2001 317 23 19 | 261.066 | -615.046 | D | 1.498 | 22.027 | 23.525 | 6.80 | 0.093 | 1.354 | 0.027 | | |
| 0.002 0.004 0.006 | 0.012 | 3.680 | 2.670 | 3.770 | 1 | | | | | | | |
| 2001 281 23 3 | 271.855 | -617.469 | D | 1.442 | 22.056 | 23.499 | 6.54 | 0.189 | 1.071 | 0.077 | | |
| 0.007 0.011 0.017 | 0.071 | 3.720 | 2.690 | 3.760 | 2 | | | | | | | |
| 2001 290 23 9 | 272.589 | -616.522 | D | 1.233 | 22.056 | 23.290 | 5.59 | 0.094 | 1.105 | 0.023 | | |
| 0.002 0.003 0.005 | 0.001 | 3.720 | 2.690 | 3.760 | 3 | | | | | | | |
| 2001 325 23 9 | 272.589 | -616.522 | D | 1.139 | 22.027 | 23.166 | 5.17 | 0.089 | 1.011 | 0.026 | | |
| 0.002 0.004 0.006 | 0.002 | 3.680 | 2.670 | 3.770 | 4 | | | | | | | |

| | | | | | | | | | | | | | |
|-------|-------|-------|-------|---------|----------|-------|-------|--------|--------|------|-------|-------|-------|
| 2001 | 336 | 23 | 8 | 271.825 | -616.547 | D | 1.085 | 22.185 | 23.269 | 4.89 | 0.209 | 0.812 | 0.038 |
| 0.003 | 0.005 | 0.009 | 0.008 | 3.880 | 2.790 | 3.930 | 5 | | | | | | |
| 2001 | 329 | 23 | 35 | 273.293 | -614.653 | D | 1.071 | 22.027 | 23.098 | 4.86 | 0.041 | 0.904 | 0.041 |
| 0.004 | 0.006 | 0.009 | 0.067 | 3.680 | 2.670 | 3.770 | 6 | | | | | | |
| 2001 | 354 | 23 | 18 | 260.302 | -615.069 | D | 0.955 | 22.185 | 23.140 | 4.30 | 0.128 | 0.778 | 0.030 |
| 0.003 | 0.004 | 0.007 | 0.005 | 3.880 | 2.790 | 3.930 | 7 | | | | | | |
| 2001 | 43 | 23 | 3 | 271.855 | -617.469 | D | 0.743 | 21.835 | 22.578 | 3.40 | 0.119 | 0.588 | 0.012 |
| 0.001 | 0.002 | 0.003 | 0.019 | 3.440 | 2.530 | 3.520 | 8 | | | | | | |
| 2001 | 69 | 23 | 35 | 273.293 | -614.653 | D | 0.551 | 21.600 | 22.151 | 2.55 | 0.047 | 0.483 | 0.014 |
| 0.001 | 0.002 | 0.003 | 0.000 | 3.140 | 2.370 | 3.310 | 9 | | | | | | |
| 2001 | 51 | 23 | 3 | 271.855 | -617.469 | D | 0.555 | 21.835 | 22.390 | 2.54 | 0.069 | 0.469 | 0.010 |
| 0.001 | 0.001 | 0.002 | 0.003 | 3.440 | 2.530 | 3.520 | 10 | | | | | | |
| 2001 | 282 | 23 | 35 | 273.293 | -614.653 | D | 0.472 | 22.056 | 22.528 | 2.14 | 0.058 | 0.356 | 0.020 |
| 0.002 | 0.003 | 0.005 | 0.029 | 3.720 | 2.690 | 3.760 | 11 | | | | | | |
| 2001 | 200 | 23 | 35 | 273.293 | -614.653 | D | 0.465 | 21.881 | 22.347 | 2.13 | 0.111 | 0.340 | 0.010 |
| 0.001 | 0.001 | 0.002 | 0.000 | 3.490 | 2.590 | 3.690 | 12 | | | | | | |
| 2001 | 303 | 23 | 3 | 271.855 | -617.469 | D | 0.452 | 22.056 | 22.508 | 2.05 | 0.045 | 0.395 | 0.009 |
| 0.001 | 0.001 | 0.002 | 0.000 | 3.720 | 2.690 | 3.760 | 13 | | | | | | |
| 2001 | 155 | 23 | 35 | 273.293 | -614.653 | D | 0.451 | 22.055 | 22.506 | 2.04 | 0.073 | 0.348 | 0.014 |
| 0.001 | 0.002 | 0.003 | 0.010 | 3.710 | 2.710 | 3.880 | 14 | | | | | | |
| 2001 | 196 | 23 | 3 | 271.855 | -617.469 | D | 0.416 | 21.881 | 22.298 | 1.90 | 0.061 | 0.345 | 0.008 |
| 0.001 | 0.001 | 0.002 | 0.000 | 3.490 | 2.590 | 3.690 | 15 | | | | | | |
| 2001 | 119 | 23 | 9 | 272.589 | -616.522 | D | 0.384 | 21.680 | 22.064 | 1.77 | 0.057 | 0.311 | 0.011 |
| 0.001 | 0.002 | 0.002 | 0.000 | 3.240 | 2.430 | 3.410 | 16 | | | | | | |
| 2001 | 27 | 23 | 18 | 260.302 | -615.069 | D | 0.352 | 22.161 | 22.512 | 1.59 | 0.044 | 0.270 | 0.015 |
| 0.001 | 0.002 | 0.003 | 0.015 | 3.850 | 2.770 | 3.900 | 17 | | | | | | |
| 2001 | 177 | 23 | 35 | 273.293 | -614.653 | D | 0.334 | 22.055 | 22.390 | 1.52 | 0.063 | 0.262 | 0.006 |
| 0.001 | 0.001 | 0.001 | 0.000 | 3.710 | 2.710 | 3.880 | 18 | | | | | | |
| 2001 | 5 | 23 | 35 | 273.293 | -614.653 | D | 0.335 | 22.161 | 22.496 | 1.51 | 0.027 | 0.298 | 0.007 |
| 0.001 | 0.001 | 0.002 | 0.000 | 3.850 | 2.770 | 3.900 | 19 | | | | | | |
| 2001 | 201 | 23 | 3 | 271.855 | -617.469 | D | 0.300 | 21.881 | 22.182 | 1.37 | 0.097 | 0.191 | 0.008 |
| 0.001 | 0.001 | 0.002 | 0.000 | 3.490 | 2.590 | 3.690 | 20 | | | | | | |
| 2001 | 176 | 23 | 18 | 260.302 | -615.069 | D | 0.290 | 22.055 | 22.346 | 1.32 | 0.065 | 0.215 | 0.007 |
| 0.001 | 0.001 | 0.002 | 0.000 | 3.710 | 2.710 | 3.880 | 21 | | | | | | |
| 2001 | 316 | 23 | 18 | 260.302 | -615.069 | D | 0.286 | 22.027 | 22.313 | 1.30 | 0.029 | 0.249 | 0.005 |
| 0.000 | 0.001 | 0.001 | 0.000 | 3.680 | 2.670 | 3.770 | 22 | | | | | | |

--- Number of days with Extinction Change => 5.0 % : 4

--- Number of days with Extinction Change => 10.0 % : 0

--- Largest Extinction Change = 6.80 %

CALPOST Version 6.221 Level 080724

Run-Length VISIBILITY

VISIB BOESNCFG

(1/Mega-m)

RECEPTOR COORDINATES (km) TYPE BEXT(Model) BEXT(BKG) BEXT(Total) %CHANGE

3 271.855 -617.469 D 0.056 21.955 22.011 0.26

--- Number of recs with Extinction Change > 1.0 % : 0

--- Largest Extinction Change = 0.26 %

CALPOST Version 6.221 Level 080724

24HR VISIBILITY

VISIB BOESNCFG

(deciview)

START TIME

Small Large SSalt

% of Modeled Extinction by Species

| YEAR | DAY | HR | RECEPTOR | COORDINATES (km) | TYPE | DV(Total) | DV(BKG) | DELTA DV | %_SO4 | %_NO3 | %_OC | %_EC | %_PMC | %_PMF | %_NO2 | F(RH) | F(RH) | F(RH) |
|------|------|----|------------------|------------------|-------|-----------|---------|----------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|
| 2000 | 366 | 23 | 1 | 270.326 -617.519 | D | 7.968 | 7.968 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.880 | 2.790 | 3.930 | |
| 2001 | 123 | 1 | 270.326 -617.519 | D | 7.957 | 7.957 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.850 | 2.770 | 3.900 | | |
| 2001 | 223 | 1 | 270.326 -617.519 | D | 7.957 | 7.957 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.850 | 2.770 | 3.900 | | |
| 2001 | 323 | 1 | 270.326 -617.519 | D | 7.957 | 7.957 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.850 | 2.770 | 3.900 | | |
| 2001 | 423 | 1 | 270.326 -617.519 | D | 7.957 | 7.957 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.850 | 2.770 | 3.900 | | |
| 2001 | 523 | 35 | 273.293 -614.653 | D | 8.108 | 7.957 | 0.150 | 7.98 | 88.79 | 2.19 | 0.19 | 0.31 | 0.49 | 0.06 | 3.850 | 2.770 | 3.900 | |
| 2001 | 623 | 35 | 273.293 -614.653 | D | 7.969 | 7.957 | 0.012 | 7.42 | 89.83 | 1.89 | 0.16 | 0.26 | 0.42 | 0.03 | 3.850 | 2.770 | 3.900 | |
| 2001 | 723 | 1 | 270.326 -617.519 | D | 7.957 | 7.957 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.850 | 2.770 | 3.900 | | |
| 2001 | 823 | 1 | 270.326 -617.519 | D | 7.957 | 7.957 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.850 | 2.770 | 3.900 | | |
| 2001 | 923 | 1 | 270.326 -617.519 | D | 7.957 | 7.957 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.850 | 2.770 | 3.900 | | |
| 2001 | 1023 | 1 | 270.326 -617.519 | D | 7.957 | 7.957 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.850 | 2.770 | 3.900 | | |
| 2001 | 1123 | 1 | 270.326 -617.519 | D | 7.957 | 7.957 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.850 | 2.770 | 3.900 | | |
| 2001 | 1223 | 18 | 260.302 -615.069 | D | 8.077 | 7.957 | 0.120 | 12.02 | 79.24 | 2.04 | 0.18 | 0.29 | 0.46 | 5.77 | 3.850 | 2.770 | 3.900 | |
| 2001 | 1323 | 1 | 270.326 -617.519 | D | 7.957 | 7.957 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.850 | 2.770 | 3.900 | | |

--- Ranked Daily Visibility Change ---

| | | | | | | | | | | | | | | |
|------|------|-------|-------|---------|----------|---|-------|-------|-------|-------|-------|------|------|------|
| 2001 | 282 | 23 | 35 | 273.293 | -614.653 | D | 8.122 | 7.910 | 0.212 | 12.31 | 75.40 | 4.28 | 0.37 | 0.60 |
| 0.96 | 6.09 | 3.720 | 2.690 | 3.760 | 11 | | | | | | | | | |
| 2001 | 200 | 23 | 35 | 273.293 | -614.653 | D | 8.041 | 7.830 | 0.210 | 23.83 | 73.01 | 2.18 | 0.19 | 0.30 |
| 0.49 | 0.00 | 3.490 | 2.590 | 3.690 | 12 | | | | | | | | | |
| 2001 | 303 | 23 | 3 | 271.855 | -617.469 | D | 8.113 | 7.910 | 0.203 | 9.85 | 87.33 | 1.93 | 0.17 | 0.27 |
| 0.43 | 0.02 | 3.720 | 2.690 | 3.760 | 13 | | | | | | | | | |
| 2001 | 155 | 23 | 35 | 273.293 | -614.653 | D | 8.112 | 7.910 | 0.202 | 16.22 | 77.19 | 3.08 | 0.26 | 0.43 |
| 0.69 | 2.13 | 3.710 | 2.710 | 3.880 | 14 | | | | | | | | | |
| 2001 | 196 | 23 | 3 | 271.855 | -617.469 | D | 8.019 | 7.830 | 0.188 | 14.56 | 82.80 | 1.82 | 0.16 | 0.25 |
| 0.41 | 0.01 | 3.490 | 2.590 | 3.690 | 15 | | | | | | | | | |
| 2001 | 119 | 23 | 9 | 272.589 | -616.522 | D | 7.913 | 7.738 | 0.175 | 14.76 | 81.12 | 2.82 | 0.24 | 0.39 |
| 0.63 | 0.03 | 3.240 | 2.430 | 3.410 | 16 | | | | | | | | | |
| 2001 | 27 | 23 | 18 | 260.302 | -615.069 | D | 8.115 | 7.957 | 0.157 | 12.53 | 76.92 | 4.28 | 0.37 | 0.60 |
| 0.96 | 4.35 | 3.850 | 2.770 | 3.900 | 17 | | | | | | | | | |
| 2001 | 177 | 23 | 35 | 273.293 | -614.653 | D | 8.060 | 7.910 | 0.150 | 18.79 | 78.52 | 1.86 | 0.16 | 0.26 |
| 0.42 | 0.00 | 3.710 | 2.710 | 3.880 | 18 | | | | | | | | | |
| 2001 | 5 | 23 | 35 | 273.293 | -614.653 | D | 8.108 | 7.957 | 0.150 | 7.98 | 88.79 | 2.19 | 0.19 | 0.31 |
| 0.49 | 0.06 | 3.850 | 2.770 | 3.900 | 19 | | | | | | | | | |
| 2001 | 201 | 23 | 3 | 271.855 | -617.469 | D | 7.967 | 7.830 | 0.136 | 32.43 | 63.67 | 2.69 | 0.23 | 0.38 |
| 0.60 | 0.00 | 3.490 | 2.590 | 3.690 | 20 | | | | | | | | | |
| 2001 | 176 | 23 | 18 | 260.302 | -615.069 | D | 8.040 | 7.910 | 0.131 | 22.49 | 73.96 | 2.45 | 0.21 | 0.34 |
| 0.55 | 0.00 | 3.710 | 2.710 | 3.880 | 21 | | | | | | | | | |
| 2001 | 316 | 23 | 18 | 260.302 | -615.069 | D | 8.026 | 7.897 | 0.129 | 10.19 | 87.17 | 1.79 | 0.15 | 0.25 |
| 0.40 | 0.05 | 3.680 | 2.670 | 3.770 | 22 | | | | | | | | | |

--- Number of days with Delta-Deciview => 0.50: 4
 --- Number of days with Delta-Deciview => 1.00: 0
 --- Largest Delta-Deciview = 0.658

```
*****
*****
```

CALPOST Version 6.221 Level 080724

```
*****
*****
```

Run-Length VISIBILITY

VISIB BOESNCFG

(deciview)

| RECEPTOR | COORDINATES (km) | TYPE | DV(Total) | DV(BKG) | DELTA DV |
|----------|------------------|------|-----------|---------|----------|
| 1 | 270.326 -617.519 | D | 7.889 | 7.864 | 0.025 |

--- Number of recs with Delta-Deciview > 0.10: 0
 --- Largest Delta-Deciview = 0.025